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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

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SUBJECT: Request for a Ceiling Increase and Change of Scope for the Removal Action at the Elkton Farm Firehole Site, Elkton, Cecil County, Maryland

FROM: Charles E. Fitzsimmons, On-Scene Coordinator
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TO: James Burke
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THRU: for Dennis Carney, Associate Director
Office of Preparedness and Response

I. PURPOSE

The purpose of this Action Memorandum is to request a ceiling increase and change of scope for the Removal Action at the Elkton Farm Firehole Site ("Site"). The Site is located at 183 Zeitler Rd., Elkton, Cecil County, Maryland. The project ceiling increase requested in this Action Memorandum will allow the U.S. Environmental Protection Agency (EPA) to continue to address threats posed by extensive munitions of explosive concern located at the 55-acre site, as well as newly-found asbestos contamination. The Action Memorandum requests a ceiling increase of $2,150,000, of which $2 million is from the Regional removal allowance for mitigation contracting. The total project ceiling would be raised to $5,700,000 of which $5,350,000 would be for mitigation contracting.

On September 28, 2005, Mr. Abraham Ferdas, Director, Hazardous Site Cleanup Division approved the $2 million and One Year Statutory Exemption Action Memorandum for the Elkton Farm Firehole Site (Attachment A). This Action Memorandum requests additional funding for continued removal work at this site. An additional Action Memorandum seeking approval for a ceiling increase above $6 Million is expected due later this summer.

Conditions at the Site continue to meet the criteria for a removal action under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, (CERCLA), 42 U.S.C. § 9601 to 9675, as documented in Section 300.415(b)(2) of the National Contingency Plan (NCP). There are no nationally significant or precedent-setting issues associated with the Site.

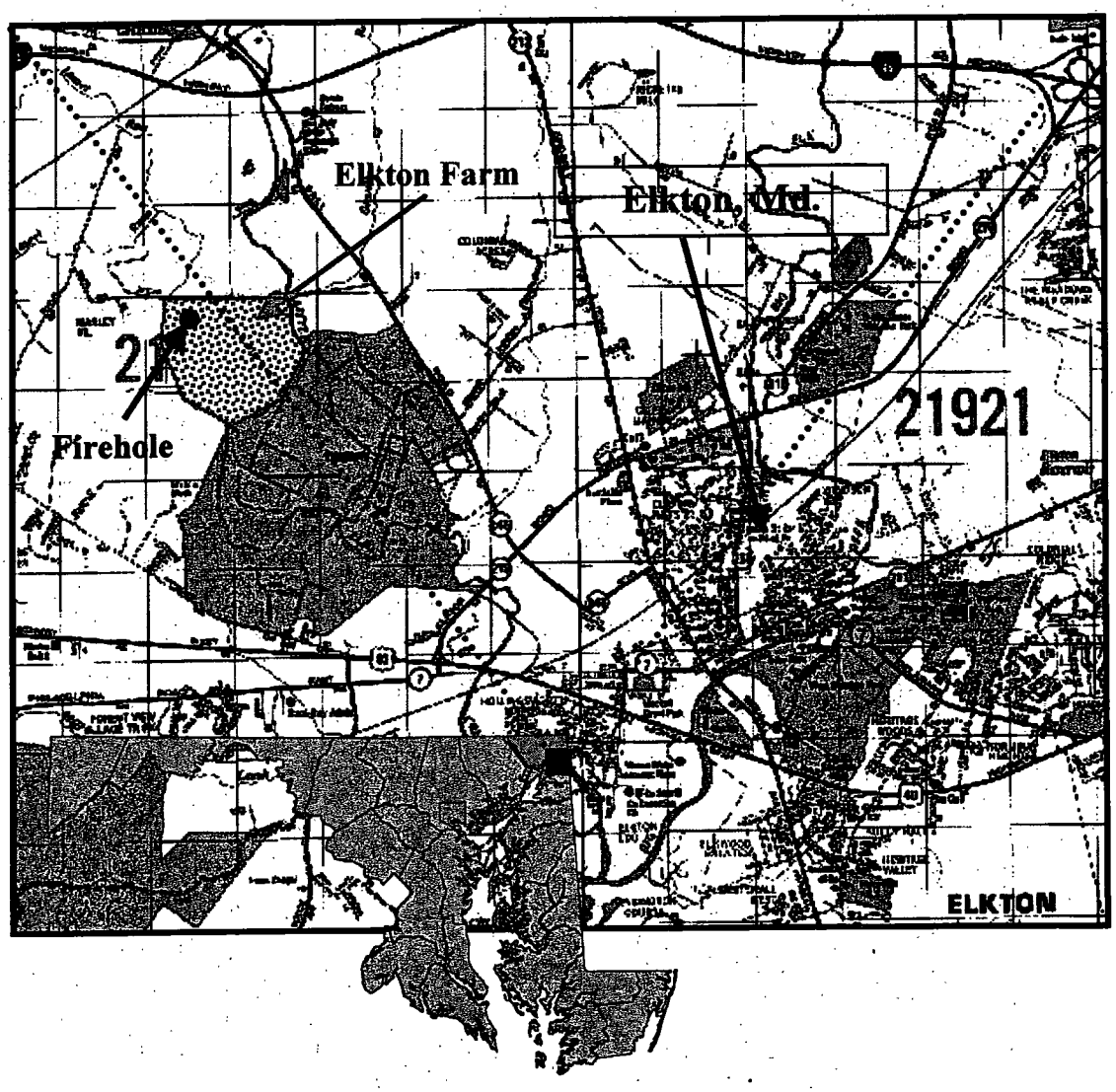
II. SITE BACKGROUND AND CURRENT CONDITIONS

A. Site Location, Historical Background

The Elkton Farm Firehole Site is located two miles northwest of Elkton, Maryland. The Site occupies at least 55 acres (and potentially 150 acres or more) of an approximate 400-acre farm property presently owned by Herron 393 LLC ("Elkton Farm property") (Figure 1). The Firehole parcel is located on the USGS Bayview/Newark West quadrangles at approximately 39°38' north latitude and 75°53' west longitude and has a Maryland grid coordinate of 655,000 N and 1,117,500 E. The site is bounded on the west by Laurel Run, to the north by Zeitler Road, to the East by Little Elk Creek and to the south by ATK Missions Systems Inc. ATK is a private company located at 55 Thiokol Rd., Elkton Md. that tests aerospace systems, space systems and weapons systems. A gravel access road bisects the western quadrant of the site. The areas of potential contamination currently identified by EPA are in this western quadrant. Land use surrounding the site is primarily agricultural/residential, with an area of medium to heavy industry property (ATK) to the southeast across Little Elk Creek. (EPA recently determined that a small swath of land along the southern boundary of the Site is in fact owned by ATK. EPA has ceased removal activities on the ATK swath.)

The contamination still to be addressed pursuant to this action memorandum appears to have been left behind during World War II as part of the operations of Triumph Explosives, Inc., which occupied property adjacent to the Elkton Farm property (including property now owned by ATK) and which is further described below. Between 1946 and August of 2006, the Elkton Farm property was owned by various members of the Martin Herron family, who leased much of its fields (including the location of the fireholes) to a farmer for cultivation. (The field cultivated by the farmer included the swath of land at the foot of the farm field owned by ATK.) In August, 2006, the Herron family sold the Elkton Farm property to its present owner, Herron 393 LLC, a land development company associated with the New Jersey-based Windsor Companies, LLC which plans to build a large residential development on it. Current plans are for Herron 393 to develop parcels of the land elsewhere on the 393 acre property, and for the former farm field below Zeitler Road (including the 55-acre site being addressed by EPA) to be used as a water reservoir and utility location to support the proposed development. (The proposed layout of the development, including in the 55-acre area occupied being addressed by EPA, is shown in Attachment B.)

Figure 1 Site Location Map



For additional site historical information, as well as prior site assessment activities undertaken by the Maryland Department of the Environment (MDE), EPA, and the United States Army Corps of Engineers (USACE), please refer to the September 25, 2005 Action Memorandum (Attachment A, pp. 1-6).[1]

[1] As a result of MDE's Site Investigation (SI) activities, the EPA Region III Removal Branch was requested by EPA's Brownfields and Site Assessment Section to perform a Removal Site Evaluation ("RSE") of the MEC, including DMM and any other imminent and/or explosive hazard for determination of a Superfund Time-Critical or Emergency Removal Action. EPA undertook this work in accord with EPA's Interim Final Handbook on the Management of Munitions Response Actions, EPA 505-B-01-001, May 2005. ("EPA Munitions Handbook").

B. EPA Site Removal Activities

Pursuant to the September 25, 2005 Action Memorandum, in March 2006 EPA initiated removal activities at the site, acting in part through USACE Baltimore District under an Inter-Agency Agreement (IAG) with EPA Region 3. The 55-acre site as identified in the original Action Memorandum was divided into two distinct geographical areas. Based on the geophysical survey conducted by EPA, Phase I area consists of the surficial (surface to 18 inches below surface) portion of the currently identified 55-acre Site (not including the firehole pits themselves), and the Phase II area comprises the firehole pits themselves, which appear to occupy roughly one-quarter of the site and extend to depths of 3 or 4 feet below the surface. Refer to figure 2. USACE's unexploded ordnance (UXO) contractor commenced Phase I activities in March 2006. These activities included the mobilization of personnel, equipment and materials to perform magnetometer surveys ("magging") on a grid-by-grid basis. Each grid covered an area of 100 ft. by 100 ft. The specific process included the placement of two teams, comprised of six certified UXO technicians including health and safety oversight, to walk and scan each grid until every anomaly detected by the metal detectors was investigated. The individual teams were placed in separate grids at a distance calculated to be a safe distance from each other and to the support staff located at the site command post. During Phase I magging and digging activities well over a total of 80,000 individual hand digs were performed by the USACE contractor. Of this number 6,903 munitions of explosive concern (MEC)[2] were detected and either disposed of on site via detonations (when found to be fuzed and contain explosive material) or transported off site for disposal (when found to be unfuzed or inert). In addition, approximately 573 pounds of munitions debris (MD) were detected and disposed off site. Munitions debris is fragments of MEC that were either dragged around the site by farming activity or blown out of the original fireholes when the onsite disposal of these items took place during WWII. The USACE was able to complete 110 grids using the industry standard mag and dig approach before demobilizing in September 2006 (see discussion below). The 110 grids comprised approximately 40% of the overall site geographical area.

USACE initiated Phase II activities in July 2006. Phase II activities addressed the north central portion of the site and included the suspected fireholes themselves. The USACE's desired approach was to use heavy up-armored mechanized equipment, including a new large road grader with integrated dynamic sifter and hopper called the "Rangemaster." The Rangemaster had proven successful on seemingly similar type Department of Defense range sites out west. In addition, a trackhoe with a rotating sifting device called the Taz was to aid in the excavation and sifting operations. The Rangemaster's function was to clear the top 18 inches of the suspected firehole areas, and was to have been followed by the Taz excavation to depths of approximately four feet. Shortly after Phase II activities commenced, the Rangemaster proved to be incapable of sifting the soils adequately and required continuous maintenance to the point

[2] Under EPA and DoD guidance, MEC includes: (1) Unexploded ordnance (UXO); (2) Discarded military munitions (DMM); or (3) Munitions Constituents (e.g. TNT, RDX) which present in high enough concentrations to pose an explosive hazard. MEC was formerly known as Ordnance and Explosives (OE) in DoD parlance. EPA Munitions Handbook at xix.

where the USACE determined it to be no longer cost effective. In early August 2006, the USACE used the Taz to initiate excavation of the fireholes and began to pull out sections of building debris, including tile and boards. Samples of the debris verified the existence of asbestos in tile and siding (asbestos-containing material or "ACM"), which had the potential to become friable if proper precautions were not initiated. Due to the USACE contract requirements, the contractor was not able to safely and legally continue excavation operations in the Phase II area. In September 2006, the USACE demobilized from the site.

EPA maintained oversight of all work during the USACE's work at the Site. After USACE demobilized from the Site in September 2006 EPA hired 24-hour site security. From October 2006 thru March 2007, EPA competed task orders from its three separate ERRS contractors to complete the munitions removal work and address the newly-identified asbestos handling and possible disposal concerns. Based on evaluation of the three proposals by a technical evaluation panel, Guardian Environmental Services Inc., Bear, Delaware (GES) was chosen. GES proposed a soil washing approach that essentially would rinse the soils contaminated with MEC through prefabricated screens of various sizes, which is expected to satisfy concerns about both the munitions as well as the potential friable asbestos tile since it would remain wetted at all times. The soil washing would address only the work in Phase II. Completion of the remainder of the Phase I grids would utilize the mag and dig approach which proved to be the most cost-effective and safest approach for the surface Phase I area.

In early May 2007 GES mobilized a UXO subcontractor to resume Phase I activities only. To date, sixteen grids have been completed bringing the total now completed to 126. The total number of anticipated Phase I grids is approximately 155. During Phase I activities over 18,000 digs were performed and 1695 additional items of MEC were found (not all of which contained explosive material). EPA anticipates continuing with the mag and dig approach in Phase I and the testing of the soil washing approach and then final implementation thereof within the Phase II area later this summer.

III. Site Conditions

Over the past 50 years the Elkton Firehole Site has been farmed by a farmer under a lease agreement with the property's owner. The farmer had cultivated two or three different types of agricultural crops per year, including wheat, corn, etc. Based on observations made at the Site by EPA as well as MDE and USACE, this tilling and dragging process appears to have scattered MEC at the surface throughout the Site. Additionally, freeze/thaw cycles over sixty years may also have contributed to the surfacing of MEC. A geophysical survey performed by EPA's START contractor revealed numerous locations/anomalies of potential MEC. In addition, work completed by the USACE and by EPA in 2006 and 2007 verifies the existence of large quantities of metal anomalies representing MEC, fragments thereof and ACM. The geophysical survey was terminated at 55 acres due to funding issues and because the hits for potential MEC tapered off, but it is expected that up to 100 additional acres of the property will have to be assessed for possible MEC. Presently, the current property owner Herron 393 is undertaking UXO

investigative work on the Elkton Farm property outside of EPA's 55-acre area of concern under MDE's supervision pursuant to its Voluntary Cleanup Program ("VCP").

An abandoned concrete and steel structure was formerly located in the southwestern portion of the Site, adjacent to a firehole. This structure is known as the Morton Thiokol Rocket Recovery Area (RRA). Morton Thiokol (former owner of the ATK facility) used this facility to test rocket motors in the 1960s. Morton Thiokol removed these structures under the supervision of MDE during July and August, 2005.

EPA's removal activities under the original Action Memorandum are described above.

As described above, the site is as large as 150 acres (although EPA expects under this action that it will only need to address the 55-acre area of immediate concern, with the rest being addressed by Herron 393 and MDE under the VCP) and is comprised of open farmland bounded by streams and woodlands. As a result, it appears to be too large an area around which to erect security fencing. Therefore, in March, 2005 the OSC posted warning signs alerting trespassers and nearby residents that EPA is conducting a Superfund cleanup, and provided a phone number for questions.

A. Quantities and Types of Substances Present

As noted in the September 2005 Action Memo, the USACE conducted a site visit on May 28, 2004 during which MEC was identified on the surface of the property. "What appeared to be projectile nose and tail fuzes, and parts and pieces of pistol flares were observed at the site. There were several areas observed that had no or very little crop growth in relation to the rest of the crop in the area." Resume of USACE Staff site visit. USACE staff recommended that "Site activities should include a unexploded ordnance (UXO) team providing UXO Safety Support as a minimum. Intrusive activities should provide for on-site disposal of UXO items which are deemed too hazardous to transport over public roadways." Id.

As also set forth in the September 2005 Action Memorandum, MDE's MEC contractor (UXB, Inc.) stated that:

> These projectiles may have been loaded with or without high explosives; a detailed inspection of each was not accomplished. Typical primary and secondary explosives associated with these projectiles, primers, casings and cartridge actuated devices are explosives and propellants for primary explosive initiating mixtures, Lead Azide, Lead Styphnate, Fulminate of Mercury, Fulminating Mercury, Acetone Peroxide, Lead Picrate, and Sodium Azide, and secondary explosives boosters tetrytol, PETN [pentaerythritol tetranitrate] and TNT.

Lead Azide, Lead Styphnate, Fulminate of Mercury, Fulminating Mercury, Acetone Peroxide, Lead Picrate, and Sodium Azide, and secondary explosives boosters tetrytol, PETN and TNT are all classified as "primary" explosives under EPA guidance (Munitions Handbook, p, xv & 3-7[3]), and are considered characteristic hazardous wastes under RCRA 40 C.F.R. § 261.23(7) (readily capable of detonation or explosive decomposition), for reactivity. Additionally, Sodium Azide is a listed RCRA hazardous waste (P105). These chemicals are therefore hazardous substances under CERCLA pursuant to 40 C.F.R. § 302.4.

While the impetus for this Removal Action is the potential explosives threat posed by MEC at the Site, EPA will consider removing any non-explosive hazardous substances encountered during the Removal action that appear to be related to the historic disposal of MEC and are intermixed with the MEC. Presently, the known non-explosive hazardous substance is asbestos tile which if handled improperly, could become friable.

Site investigations by EPA, MDE, and USACE, as well as the response work done thus far, have confirmed the presence of DMM and MEC at the Site (see September 25, 2005 Action Memorandum, pp. 6-10, and discussion of completed removal work, above; August 2006, Military Munitions Response Program Site Assessment prepared by USACE). During activities performed by the USACE, building debris containing asbestos was detected, sampled and analyzed. Asbestos is a hazardous substance under 40 C.F.R. § 302.4. It may be that additional non-MEC hazardous substances will be found (although there is no site historical file info to suggest this.)

B. National Priorities List Status

This site is not presently on the National Priorities List (NPL).

C. State and Local Authorities' Roles

The MDE referred the Elkton Firehole site to EPA for a removal action due to its lack of resources to complete this action. The Site is part of a larger project called the Little Elk Creek One Cleanup Program. The purpose of the project is to develop a collaborative effort among EPA programs, the State, and local officials in the cleanup and revitalization of the Little Elk Creek, Elkton, Md. area. The Maryland Department of the Environment (MDE) has the overall lead of the project and EPA has provided support to them when requested. For further information regarding MDE's activities at the Site, as well as a consult undertaken by the Agency for Toxic Substances and Disease Registry ("ATSDR") focusing on the potential for uptake of nitrosamine compounds by plants, see the September 25, 2005 Action Memorandum at pp. 4-10.

As noted above, in August, 2006, Herron 393 purchased the property, and subsequently filed an application with MDE to participate in its VCP. Both MDE and EPA have stated to

[3] Citing U.S. Army Corps of Engineers Pamphlet No. 1110-1-18, "Engineering and Design Ordnance and Explosives Response," April 24, 2000.

Herron 393 that it would be responsible for any residual contamination at the firehole site after EPA had completed its removal action, as well as for all contamination (MEC and otherwise) outside of the 55-acre area that EPA is addressing. This residual contamination may include, but not be limited to: scattered munitions debris, contaminated soils and contaminated groundwater. Herron 393 has agreed to perform this site assessment (and if necessary, cleanup), and plans to mobilize its UXO contractor to initiate MEC assessment activities sometime this summer.

IV. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT

Section 300.415 of the NCP lists the factors to be considered in determining the appropriateness of response activities. Paragraphs (B)(2)(i), (ii), (iv), (v) and (vii) apply to the need for response at the Elkton Farms Firehole Site as follows:

300.415(b)(2)(i) *"Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants"*

On May 28, 2004 the USACE, Ordnance and Explosive Safety Specialists, Baltimore District, Md., at the request of MDE, performed a site visit to assess unexploded ordnance hazards. The following Resume of Site Visit document dated June 06, 2004 concluded "MEC-related items were discovered on the surface of the property visited. Approximately 8 acres were covered in the site visit walkover. Crops are growing on the site. The site is reported to be farmed year round. What appeared to be projectile nose and tail fuzes, and parts and pieces of pistol flares were observed at the site. There were several areas observed that had no or very little crop growth in relation to the rest of the crop in the area." The Resume recommended that "Site activities should include an unexploded ordnance (UXO) team providing UXO Safety Support as a minimum. Intrusive activities should provide for on-site disposal of UXO items which are deemed too hazardous to transport over public roadways."

On June 29, 2004, the USACE Baltimore District issued a draft Risk Assessment Code Score (RAC) for the Site. The RAC score is utilized by the USACE to prioritize response actions at Formerly Utilized Defense ("FUD") sites. The RAC score for this site was 1(II-A). This score depicted the evaluation to be a high risk with a severity category of critical. The narrative portion of this document revealed "The Navy paid for the construction of over 500 buildings to be used by the contractor TEI for the manufacture of ordnance (40mm shells) and other ordnance related products. A walkover was conducted in the suspected area of the former firehole on 28 May 2004. Numerous suspect MM/MEC-related items were observed during the site visit."

At the request of the EPA Site Assessment Manager (SAM) and in coordination with the FOSC, the Agency for Toxic Substances and Disease Registry (ATSDR) performed a health consult focusing on the potential for uptake of nitrosamine compounds by plants. ATSDR issued its preliminary Consult dated 06/01/05, and its final Consult on December 22, 2005. According to the final Consult, "ATSDR does not expect that chemical concentrations in surface soil from

that chemical concentrations in surface soil from the Firehole portion of the site will pose a public health concern for adults or children residing near or visiting the Firehole portion of the site in the future, if appropriate measures (e.g. the proposed removal actions) are taken to eliminate contact with the elevated levels of contamination identified in the various sampling investigations." This action will complete the removal action reviewed by ATSDR.

This site continues to represent an imminent and substantial threat to human populations as a result of findings of DMM and MEC in numerous grids both within the Phase I and Phase II geographical area. With the newly-found asbestos contamination within the Phase II area, it is now more imperative for EPA to continue removal operations.

300.415(b)(2)(ii) *"Actual or potential contamination of drinking water supplies or sensitive ecosystems."*

In May 2003, MDE collected five groundwater samples from site monitoring wells and analyzed them for total and dissolved metals, VOCs, SVOCs, pesticides and PCBs, nitroaromatic compounds, and perchlorates. MDE also collected a water sample from a domestic well at this time to evaluate background groundwater conditions.

- A trace level (below a health-based screening value) of 4-amino-2,6-dinitrotoluene (0.015 µg/L) was also detected in one of the two samples from MW-2.[4]

Presently, no drinking water source is affected by these concentrations. Removing the presumed source materials (MEC, etc.) should eliminate any potential threat to groundwater that might be presented by the MEC.

300.415(b)(2)(iv) *"High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate."*

As previously mentioned in this memorandum (Section IIB), the Elkton Farm site is scattered with potentially thousands of unexploded MEC. The draft USACE Risk Action Code (RAC) Summary Document dated June, 2004 rated this site as Category I, which (if this response was being handled by DoD under its Military Munitions Response Program (MMRP) would require immediate response). In addition, based on findings by the USACE under IAG with EPA during removal activities during 2006, numerous MEC items such as 40mm projectiles, 81mm mortar rounds, and numerous other components and remnants are present at the Site, all of which are considered to be of explosive concern.

300.415 (b)(2)(v) *"Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released"*

The Elkton Farm property lays at the confluence of Little Elk Creek with Laurel Run. Natural drainage on the site is in a generalized north to south direction. There is a slight drainage divide on the property which directs surface runoff to either Laurel Run or Little Elk Creek.

[4] No perchlorates were detected in any of the groundwater samples.

Surface water infiltrates the soil to groundwater, or is discharged via overland flow to Laurel Run or Little Elk Creek. Laurel Run discharges into Little Elk Creek which flows southward into Big Elk Creek and eventually to the Chesapeake Bay.

The farthest upstream probable point of entry for the surface water route originates at the on-site drainage ditch on the Zeitler Road border of the site. The drainage ditch travels west for approximately 500 feet before emptying into Laurel Run, a perennial freshwater stream and a fishery. Laurel Run flows 0.625 miles to its confluence with Little Elk Creek. The area of the confluence of Laurel Run and Little Elk Creek is classified as Palustrine Aquatic Bed wetlands. Little Elk Creek flows south southeast for approximately 4.0 miles before emptying into the Big Elk Creek. Big Elk Creek flows approximately 2.25 miles to the point where it empties into Elk River. Elk River flows approximately 12.0 miles to its confluence with the Chesapeake Bay. The 15-mile surface migration pathway ends in the Elk River three miles from the confluence of Elk River with the Chesapeake Bay. The Elk River is classified as Estuarine intertidal wetlands and is a fishery.

Washout is evident on the site. Numerous metal objects representing fuses, shells, detonators are visible in the site drainage ditches throughout the site. Adverse weather conditions including heavy precipitation potentially can carry these objects towards Laurel Run and Little Elk creek.

300.415 (b)(2)(vi) "Threat of fire or explosion"

As previously noted in this memo, DMM and MEC are present in numerous grids within both the Phase I and Phase II areas. These represent the primary threat to be addressed by this removal action. This DMM and MEC pose a significant threat of explosion to passersby, and any others who may come across or disturb these materials.

V. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances, pollutants or contaminants from this Site, if not addressed by implementing the response actions outlined in this funding request, may present an imminent and substantial endangerment to the public health, welfare, or the environment.

VI. PROPOSED ACTIONS AND COSTS

The Removal Action proposed is designed to mitigate the imminent threat by removing the MEC and limited/discrete TNT contamination in the soil at the Site, and to address ACM. (Non-hazardous scrap material will be left onsite; disposition of such material is not within the scope of this action.) A geophysical survey and removal of DMM found in the outlying area, (outside the 55 acres described herein) including the wooded area and creeks is expected to be performed by Herron 393, under the supervision of MDE. The MEC and ACM to be addressed by this action are located in the fireholes at depths ranging from the surface to approximately 4 feet. The MEC are also scattered throughout the surface soils on the site.

EPA anticipates the continuance of its removal activities to complete removal of MEC and asbestos from the site utilizing the mag and dig standard approach within Phase I and a soil

washing approach within Phase II geographical areas. Specifically, proposed actions include the following EPA lead activities:

A. Proposed Actions

1. Mobilize personnel and equipment;
2. Provide Site security by erecting temporary banner fencing around the fire pit area and provide a security guard during non-working hours to protect equipment;
3. Provide erosion, sedimentation and storm water control to minimize release of MEC from the site;
4. Store large MEC and explosive material in two Alcohol Tobacco and Firearm (ATF)-inspected explosive magazines preparatory to onsite destruction of these items per #11 below;
5. Complete magging and digging operations within the Phase I area to identify and remove MEC found;
6. In Phase II area, perform removal of MEC at depths ranging from surface to four feet below surface;
7. In Phase II area, remove and separate asbestos and ACM and any other containers of hazardous substances/waste that may be buried on site;
8. Ensure proper soil stabilization measures are in place through site restoration activities such as grading and revegetation;
9. Demobilize all personnel and equipment and materials from the site and demobilization of site security measures;
10. Dispose of non-fuzed material offsite in accordance with Section 121(d)(3) of CERCLA and 40 C.F.R. 300.440;
11. Perform onsite destruction (detonation) of fuzed material;
12. Separate asbestos containing material from the MEC and stage it separately on site, in accordance with the substantive provisions of 40 C.F.R. § 61.150. EPA will determine in a subsequent Action Memorandum whether the ACM will remain onsite or be taken offsite for disposal;
13. Perform all Site activities in accordance with an approved health and safety plan.

B. Contribution To Remedial Performance

The Site has not been proposed for the NPL, therefore there are no Remedial Actions planned for the Site at this time. However, the proposed Removal Action is consistent with Superfund cleanup policy that applies to both Remedial and Removal sites and will contribute to and not impede future Remedial action and/or MDE voluntary cleanup procedures, at the Site.

C. Compliance With ARARs

Superfund regulations require that removal actions attain applicable, or relevant and appropriate, requirements (ARARs), to the extent practicable considering the exigencies of the situation. ARARs address a chemical-specific, action-specific, or location-specific requirement at a CERCLA site. Section 121(e)(1) of CERCLA provides that actions carried out under CERCLA do not require federal, state or local permits.

ARARS for this action include:

Hazard Evaluation Handbook, A Guide to Removals Action, Fourth Edition, October 1997. (To Be Considered)

Management of Munitions Response Actions, EPA 505-B-01-001, May 2005 (To Be Considered)

National Emission Standard for Hazardous Air Pollutants, Asbestos Standard for Demolition and Renovation (40 C.F.R. § 61.145) (Relevant and appropriate).

ARARs were requested from the Maryland Department of the Environment and are presented below. The OSC intends to consider the State's substantive aspects and standards identified below to the extent practicable considering the exigencies of the situation.

Code of Maryland Regulations (COMAR):

26.02 Provides limits on the maximum allowable levels of noise at the site boundaries during site remediation work to protect the health, general welfare and property of the people of the State.

26.08 Protects and maintains the quality of surface water in the State. Establishes criteria and standards for discharge limitations and policy for anti-degradation of waters of the State. Any contaminated groundwater entering the surface water must meet ambient water quality criteria. Discharge of treated groundwater must meet State NPDES limits.

26.11 Provides ambient air quality standards, general emissions standards, and restrictions for air emissions from construction activities, vents, and treatment technologies such as incinerators. Also includes nuisance and odor control.

26.17 Provides that any land-clearing, grading, other earth disturbances require an erosion and sediment control plan. Provides that stormwater must be managed to prevent off-site sedimentation and maintain current site conditions.

26.23.02 Provide for a comprehensive watershed management plan to protect from an individual or cumulative effect that degrades the sensitive nature of the aquatic ecosystem.

D. Estimated Costs

Under an Interagency Agreement between the EPA Region III and the USACE- Baltimore District, the EPA oversaw the USACE removal activities during the spring and summer of 2006. Due to the findings of non-MEC material such as asbestos and the potential for additional findings of non-MEC hazardous substances, EPA determined that use of one of its ERRS contractors would be the most cost effective and also safest to accomplish the disposal of MEC, asbestos and potentially other containerized CERCLA hazardous substances.

Therefore, due to this change in proposed resources and identification of new information such as the asbestos, additional money will be needed to complete this action. It is further anticipated that the total project costs may exceed $6 million and therefore another action memo for a request for an exemption to the $6 million statutory ceiling for a removal action will be submitted later this summer.

	Current Ceiling	Proposed Ceiling Increase	New Ceiling
Intramural Cost Total	**$ 100,000**	**$ 100,000**	**$ 200,000**
Regional Removal Total Allowance Costs	**$3,350,000**	**$ 2,000,000**	**$5,350,000**
Other Extramural Not Funded from Regional Allowance (Start, CLP)	**$ 300,000**	**$ 50,000**	**$ 350,000**
Direct Costs	**$3,750,000**	**$ 2,150,000**	**$5,900,000**

VII. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Without removal of the munitions and explosives of concern/discarded military munitions which are described in this Action Memorandum, there is the potential for one of these devices to seriously injure a site trespasser, farmer or resident in the area. There is also the potential for washout of these munitions into nearby Laurel Run Creek or Little Elk Creek.

VIII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues pertaining to the Elkton Farms Firehole Site.

IX. ENFORCEMENT STATUS

The EPA Region III Office of Enforcement has been provided with all background information relative to this site (see attached Confidential Enforcement Addendum). On August 5, 2006, EPA entered into a settlement with Herron 393 whereby EPA agreed to not assert a potential windfall lien against Herron 393 under Section 107(r) of CERCLA, 42 U.S.C. 9607(r) in return for the payment of $263,000.

The total EPA costs for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be $: 5,900,000.[5]

Direct Extramural Costs:	$5,700,000
Direct Intramural Costs:	$ 200,000
Total Direct Costs:	$5,900,000
Indirect Costs:	$3,658,000
(62% of Direct costs)	
Total Estimated Cost:	**$9,558,000**

The OSC has provided the EPA Removal Enforcement Section with information available to pursue any and all enforcement actions pertaining to the Site. A summary of all enforcement activities to date is attached as an addendum to this document.

X. RECOMMENDATION

This decision document represents the selected removal action for the Elkton Farm Firehole Site, in Elkton, Cecil County, Maryland developed in accordance with CERCLA as amended, and not inconsistent with the NCP. This decision is based on the administrative record for the Site.

Conditions at the Site meet the criteria for a Removal Action as set forth in Section 300.415 of the NCP, 40 C.F.R. § 300.415. I recommend your approval of the proposed removal action. The total removal action project ceiling if approved will be $5,900,000 of this an estimated $5,550,000 comes from the Regional removal allowance.

Action by the Approving Official:

[5] Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of Site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States' right to cost recovery.

I have reviewed the above-stated facts and based upon those facts and the information compiled in the documents described in the attachment to this Action Memorandum, I hereby determine that the release or threatened release of hazardous substances at and/or from the Site presents or may present an imminent and substantial endangerment to the public health or welfare or to the environment. I concur with the recommended removal action as outlined.

APPROVED: _____ **DATE:** 7/18/07

James Burke, Director
Hazardous Site Cleanup Division
EPA Region 3

DISAPPROVED: _____ **DATE:** _____

James Burke, Director
Hazardous Site Cleanup Division
EPA Region 3

Attachments: